

News Report

NATIONAL ACADEMY OF SCIENCES • NATIONAL ACADEMY OF ENGINEERING
INSTITUTE OF MEDICINE • NATIONAL RESEARCH COUNCIL

1979 News Report Index

Vol. XXIX Nos. 1-12

News Report is a monthly register of activities of the National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and National Research Council.

This index is intended insofar as possible to provide a digest of the contents of the 1979 issues of *News Report*. Because the publication is devoted in large measure to discussion of reports issued by committees and panels of these organizations, principal entries generally are listed by title of report discussed (not by title of *News Report* article), alphabetically. Names of persons,

organizations, and agencies also are listed alphabetically. Subject headings and cross-references are included for topics of particularly wide interest (e.g., agriculture, energy, environment). The *News Report Index* is compiled by Elaine S. Hause.

Copies of the 1977 and 1978 indexes are available from the *News Report* office, National Academy of Sciences, 2101 Constitution Avenue N.W., Washington, D.C. 20418. Back volumes of *News Report* in microform can be ordered from University Microfilms International, 300 North Zeeb Road, Ann Arbor, Mi. 48106.

Accidental Death and Disability: The Neglected Disease of Modern Society, 1966 report of the National Research Council Committee on Trauma; cited; see *Emergency Medical Services at Midpassage*
Agency for International Development, U.S.: see *Postharvest Food Losses*
agriculture: see Causes and Prevention of Grain Elevator Explosions; *Geochemistry and the Environment*; *Odors*; *Postharvest Food Losses in Developing Countries*; *Role of the U.S. Department of Agriculture in Aquaculture*; *Toward a U.S. Climate Program Plan*; *Tropical Legumes*; *World Climate Conference*
Agriculture, U.S. Department of: see *Role of the U.S. Department of Agriculture in Aquaculture*
Agriculture and Renewable Resources, Board on: see *Role of the U.S. Department of Agriculture in Aquaculture*
Albert Einstein Memorial: a statue, designed by sculptor Robert Berks, was unveiled on the Academy grounds in the spring as a centenary observance of Einstein's birth—Feb. 3
Alcohol, Drug Abuse, and Mental Health Administration: see *DHEW's Research Planning Principles*
Alfred P. Sloan Foundation: see *Hazardous Substances in the Laboratory*
Alternative Energy Demand Futures to 2010, Demand/Conservation Panel, National Research Council Committee on Nuclear and Alternative Energy Systems; excerpts—Nov. 2
American Association for the Advancement of Science, Committee on Scientific Freedom and Responsibility: see *Human Rights*
American Chemical Society: see *Hazardous Substances in the Laboratory*
American Council of Learned Societies: see *Astronomy in China*; *Cancer in China*
America's Uncounted People, 1972 report of the National Research Council Advisory Committee on Problems of Census Enumera-

tion; cited; see *Counting the People in 1980*
Analysis of Industry Recruitment of Women Scientists, National Research Council Commission on Human Resources; business and industry employ about 25 percent of U.S. male scientists and engineers with Ph.D. degrees but only about 7 percent of women with doctorates. The study was begun with funds from the Office of Science and Technology Policy to look at industry recruitment practices and at availability of industry-provided financial support and summer jobs for men and women students—Nov. 1
Analysis of the Exposure Levels and Potential Biologic Effects of the PAVE PAWS Radar System, Panel on the Extent of Radiation from the PAVE PAWS Radar System, National Research Council Assembly of Life Sciences; excerpt—Jul. 9
Andrew W. Mellon Foundation: see *Conference on Adolescent Behavior and Health*
Angino, Ernest E., cochairman of Subcommittee on the Geochemical Environment in Relation to Health and Disease: see *Geochemistry and the Environment*
Argentina: see *Human Rights*, National Academy of Sciences Committee on
Assessment of Scientific Opportunities in Alcohol-Related Research, Institute of Medicine Committee on: the committee was formed to consider the kinds of research needed to learn the causes of alcohol-abuse and how best to treat or prevent it; of particular interest are those areas where special emphasis is appropriate during the next five years. The study is supported by the National Institute on Alcohol Abuse and Alcoholism—Jun. 10
Astronomy in China (CSCPRC Report No. 7), trip report of the American Astronomy Delegation submitted to the Committee on Scholarly Communication with the People's Republic of China; National Research Council Commission on International Relations, American Council of Learned Societies, and Social Science Research Council; Leo Gold-

berg and Lois Edwards, eds.; the visit of 10 American astronomers to the People's Republic in late 1977 led to the impression that advancement in astronomy will play an important role in China's efforts toward scientific and technological growth. The delegation was "greatly impressed by the brilliance of much of the theoretical work" it saw, but felt that Chinese astronomy could benefit from advanced observational research, and recommended exchange visits between U.S. and Chinese observatories. The delegation's visit was supported by a grant from the National Science Foundation—Apr. 2
atmosphere: see *Atmospheric Aldehydes*; *Science and Technology*; *Strategy for Exploration of the Inner Planets*; *Toward a U.S. Climate Program Plan*; *World Climate Conference*
Atmospheric Aldehydes, Committee on, Board on Toxicology and Environmental Health Hazards, National Research Council Assembly of Life Sciences; the committee is examining aldehyde emissions from diesel and other engines, from various industrial sources, and from building products, and will examine biologic effects (including possible contributions of aldehydes to human disease or injury at chronic, low-level exposures). The study, for the Environmental Protection Agency, is intended to provide data for the agency's consideration of the need to promulgate regulations controlling aldehydes as environmental pollutants—Mar. 1
awards, National Academy of Engineering: George M. Low received the Academy's Founders Medal on November 1, 1978—Jan. 6; David Packard received the *National Academy of Engineering Founders Award* and Matthew G. Forrest received the *National Academy of Sciences' Gibbs Brothers Medal*—Dec. 4
awards, National Academy of Sciences: 18 persons were honored for contributions and services at the Academy's annual meeting: *James C. Watson Medal* to C. T. Kowal,

Part II of two parts

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J. Lawrence Smith Medal to R. B. Baldwin, Benjamin Apthorp Gould Prize to I. I. Shapiro, Alexander Agassiz Medal to H. M. Stommel, National Academy of Sciences Public Welfare Medal to C. H. and I. M. Green, Daniel Giraud Elliot Medal to G. A. Cooper and R. E. Grant, Jessie Stevenson Kovalenko Medal to H. G. Kunkel, United States Steel Foundation Award in Molecular Biology to M. Ptashne, National Academy of Sciences Award for Environmental Quality to A. Hollaender, National Academy of Sciences Award for Distinguished Service to M. B. Bullock and A. Keatley, Gilbert Morgan Smith Medal to W. R. Taylor, James Murray Luck Award to G. A. Robison, National Academy of Sciences Award in Chemical Sciences to L. Pauling, and Richard Lounsbery Award to M. S. Brown and J. L. Goldstein—Jul, 10

Aydelotte, William O., member of National Research Council panel; quoted; see *Privacy and Confidentiality*

Bally, Albert W., chairman of Ocean Sciences Board panel: see *Continental Margins*

Barbiturates and Other Sedative Hypnotics in Medical Practice, Institute of Medicine Study of: see *Sleeping Pills, Insomnia, and Medical Practice*

Beeton, Alfred M., chairman of Environmental Studies Board committee: see *Polychlorinated Biphenyls*

Behavioral and Social Sciences, National Research Council Assembly of: new projects announced: Working Group 87-Biodynamic Data Bank—Jan, 2; Panel on Outcome Measurement in Early Childhood Demonstration Programs—Aug, 3; Panel on Testing of Handicapped People—Oct, 5; see also *Counting the People in 1980*; *Evaluating Federal Support for Poverty Research*; Impact of Taxation on Energy Markets; Job Evaluation; Taxonomy of Energy Taxes

Berks, Robert: see *Albert Einstein Memorial*

Bock, Robert M., chairman of new Commission on Human Resources committee: see *Continuity in Academic Research Performance*

Brooks, Oliver, chairman of Committee on the Impact of Maritime Services on Local Populations: see *Public Involvement in Maritime Facility Development*

Bureau of Mines, U.S.: see *Workshop on Concepts of Uranium Resources and Producibility*

Califano, Joseph A., Jr.: see *Conference on Adolescent Behavior and Health*

Cancer in China: The Report of the American Cancer Delegation Visit to the People's Republic of China, submitted to the Committee on Scholarly Communication with the People's Republic of China, of the National Research Council Commission on International Relations, American Council of Learned Societies, and Social Science Research Council; Henry S. Kaplan and

Patricia Jones Tsuchitani, eds.; excerpt—Feb, 9

Carter, President Jimmy: addressed the National Academy of Sciences on April 23 at its 116th annual meeting; excerpts—Jul, 4

Causes and Prevention of Grain Elevator Explosions, Panel on, National Materials Advisory Board Committee on Evaluation of Industrial Hazards, National Research Council Commission on Sociotechnical Systems; grain-dust explosions at 6 U.S. elevators and mills between December 1977 and April 1978 claimed more than 50 lives and caused extensive property damage and loss of export revenue. The panel, in a study for the Occupational Safety and Health Administration, will look at possible causes of the explosions and will examine current information on and known techniques for controlling fire hazards due to grain dust, and will evaluate OSHA's safety regulations and investigation procedures for the grain-handling industry—May, 1

Census, U.S. Bureau of the: see *Counting the People in 1980*; *Privacy and Confidentiality*

Chemical Sciences, Committee on: see *Department of Energy: Some Aspects of Basic Research in the Chemical Sciences*

Chemistry of Disinfectants in Water: *Reactions and Products*, Subcommittee on Disinfectants and Products, Safe Drinking Water Committee, Board on Toxicology and Environmental Health Hazards, National Research Council Assembly of Life Sciences; the subcommittee, in its study for the Environmental Protection Agency, sought information on the most likely by-products of disinfectants and found that, except for chlorine, little is known. The report calls for fuller use of current analytic techniques for the detection of possible by-products and for greater study of conditions and ways in which natural organic compounds in water react with disinfectants to form potentially harmful by-products—Aug, 2

Childers, Milton O., cited: see *Workshop on Concepts of Uranium Resources and Producibility*

Christy, Robert E., first chairman of the National Academy of Sciences Steering Committee for the Nuclear Risk Survey: see *Risks Associated with Nuclear Power*

Clarke, Neville P., cochairman of Board on Agriculture and Renewable Resources panel: see *Role of the U.S. Department of Agriculture in Aquaculture*

Clean Air Act Amendments of 1977 (42 U.S. Code 7401): see *Odors*

Cleary, Stephen F., chairman of Panel on the Extent of Radiation from the PAVE PAWS Radar System: see *Analysis of the Exposure Levels and Potential Biologic Effects of the PAVE PAWS Radar System*

climate: see *Continuing Quest*; *Strategy for Exploration of the Inner Planets*; *Toward a U.S. Climate Program Plan*; *World Climate Conference*

Climate Research Board: see *Toward a U.S. Climate Program Plan*; *World Climate Conference*

Climbing the Academic Ladder: *Doctoral Women Scientists in Academe*, Committee on the Education and Employment of Women in Science and Engineering, National Research Council Commission on Human Resources; the study for the Office of Science and Technology Policy examined data

through 1977 on U.S. academic employment of women holding doctorates and found that women trail well behind men in pay, faculty rank, and tenure status. "That some changes have occurred is probably due in part" to equal-opportunity laws "although actual enforcement has been inconsistent and scattered," and the committee said that universities "must learn to assume a more cooperative attitude toward equal opportunity for women. . . . Academic freedom does not transcend the [civil-rights] law." Recommendations included a call for special programs to expand opportunity for, as well as to discourage discrimination against, women scientists—Jun, 2

Cole, Jonathan R.: see *Peer Review in the National Science Foundation*

Cole, Stephen: see *Peer Review in the National Science Foundation*

Coleman, John S.: see *National Academy of Sciences*; *National Research Council*

Commerce, U.S. Department of: see *Counting the People in 1980*; *Privacy and Confidentiality as Factors in Survey Response*

Comprehensive Survey of Doctorate Recipients: see *Nonfaculty Doctoral Research Staff Conference on Adolescent Behavior and Health*, June 26 and 27, 1978; Summary, Division of Health Sciences Policy and Division of Health Promotion and Disease Prevention, National Academy of Sciences Institute of Medicine; this staff summary recounts the concerns of participants in a conference sponsored by the National Institute on Alcohol Abuse and Alcoholism, the National Institute on Drug Abuse, the National Heart, Lung, and Blood Institute, and the Andrew W. Mellon Foundation. Conferees confessed confusion about the specific nature of adolescence, but there was general agreement on the need for better understanding of the "biological and psychological changes occurring at a time when the social environment of a young person also is changing and in which some of the greatest upheavals of the entire life span occur." Conferees were most concerned about adolescent behaviors that have near- and long-term negative consequences on health, and stressed the need for research to foster better understanding of adolescence toward the goal of formulating social policies and programs suited to the needs of adolescents—Feb, 1

Congress, U.S.: see *Saccharin: Technical Assessment of Risks and Benefits*

Connick, Robert E., chairman of Committee on Chemical Sciences: see *Department of Energy: Some Aspects of Basic Research*

Continental Margins: *Geological and Geophysical Research Needs and Problems*, Ad Hoc Panel to Investigate the Geological and Geophysical Research Needs and Problems of Continental Margins, Ocean Sciences Board, National Research Council Assembly of Mathematical and Physical Sciences; the panel's study—supported by funds from the National Science Foundation, the U.S. Geological Survey, and the Office of Naval Research—considered needs for earth-science research in planning for a program to succeed the Deep Sea Drilling Project. Large-scale drilling projects will continue to be important, the panel said, to verify information derived by other means, but those other means—including sediment

studies and deep-earth seismic studies—should receive attention first. "Future academic research on continental margins should emphasize studies of fundamentals rather than surveys or inventories and . . . should be conducted in a climate of intense dialogue between scientists in academe, industry, and government"—Sep, 3

Continental Scientific Drilling Program, U.S. Geodynamics Committee, Geophysics Research Board, National Research Council Assembly of Mathematical and Physical Sciences; the committee's report—based on a 1978 workshop—describes ways of "maximizing the scientific value of current and planned efforts of federal agencies and industry and supplementing these efforts with holes drilled solely for scientific purposes." The Federal Government now spends about \$500,000,000 on drilling each year; greater return on this investment could be gained from increased information exchange, data-management, and consideration of agency objectives and scientific activities—Aug, 1

Continuing Quest: Large-Scale Ocean Science for the Future, Post-IDOE [International Decade of Ocean Exploration] Planning Study Steering Committee, Ocean Sciences Board, Assembly of Mathematical and Physical Sciences, National Research Council; the committee's report to the National Science Foundation affirmed the importance of support for fundamental oceanographic research after the conclusion of the International Decade of Ocean Exploration in 1980. Rather than devising new projects, however, the committee felt NSF should consider programs that grow out of, and receive larger funding than, current programs, and which place greater emphasis on protection of the marine environment and on forecasting weather and climate. International cooperation should be sought whenever possible. The committee felt NSF should support small- and intermediate-sized projects lasting only a year or two, as well as large-scale, long-term projects—Feb, 4

Continuity in Academic Research Performance, Committee on, National Research Council Commission on Human Resources; several recent studies indicate a decline in U.S. faculty positions for new doctorate recipients in science and engineering through the early 1990s; because projections are not directly comparable, the National Science Foundation asked for an assessment of the different data sources and for an evaluation of what public-policy changes may be needed to maintain a desired ratio of young faculty to total faculty—Jul, 1

Counting the People in 1980: An Appraisal of Census Plans, Panel on Decennial Census Plans, Committee on National Statistics, National Research Council Assembly of Behavioral and Social Sciences; the panel, in advising the Department of Commerce on plans for the 1980 census, urged the Census Bureau to consider "adjustment" of data to account for persons who, for various reasons, will be missed in the count. Such adjustments would allow for fairer allocations in revenue-sharing and other population-dependent benefit programs, but should not be used for legislative apportionment. The panel recommended also that the bureau use paid adver-

tising to allow it "to determine the tone and content of its information program," that the format and wording of the census forms be reviewed toward the aim of simplification, and that questions on national-origin and ancestry be reinstated because such questions, in the past, have provided valuable information on second-generation Americans—Jan, 2

Crawford, Bryce, Jr., cochairman of Committee on Chemical Sciences: see *Department of Energy: Some Aspects of Basic Research*; see also elections, National Academy of Sciences

Critical Issues in Coal Transportation Systems: Proceedings of a Symposium, Committee on Critical Issues in Coal Transportation Systems, Maritime Transportation Research Board, National Research Council Commission on Sociotechnical Systems; participants had little doubt that use of coal will increase and that attention should be given to problems of transporting greater quantities of coal. But there are no clear answers to questions of where the coal will be used, by whom it will be used, or how it will be used. Ensuring a reliable fuel supply, meeting uncertain environmental regulations, and satisfying changing needs will require a flexible system. Issues raised at the symposium will be used by the committee in judging the relative importance of such issues and in considering planning for future energy transport—Apr, 8

Crow, James F., chairman of new Assembly of Life Sciences subcommittee: see *Exposure at Tests of Nuclear Weapons*

Danforth, William H., appointed chairman of Institute of Medicine presidential-search committee: see *Institute of Medicine*

Davis, David E., "Social Behavior in a Laboratory Environment," excerpt: see *Laboratory Animal Housing*

deaths, of members and foreign associates of the National Academy of Engineering: S. H. Burriss—Jul, 3; H. Mandel—May, 3; E. E. Sechler—Nov, 6

deaths, of members and foreign associates of the National Academy of Sciences: W. H. Bradley—Sep, 3; P. Byerly, A. H. Coons, G. M. Cox—Jan, 3; V. du Vigneaud—Mar, 3; C. O. Dunbar—Sep, 3; D. Emerson—Jun, 10; B. Ephrussi—Sep, 3; J. Furth—Oct, 3; R. C. Fuson—Nov, 6; D. Gabor—May, 3; D. V. Glass—Jun, 10; S. A. Goudsmit—Mar, 3; L. J. Haworth—May, 3; R. F. Heizer—Oct, 3; C. L. Huggs—Sep, 3; H. Klüver, B. Kok—Jul, 3; H. D. Lasswell—May, 3; K. P. Link—Mar, 3; F. Lynen—Nov, 6; M. Mead, W. J. Robbins—Jan, 3; E. S. Stakman—May, 3; S. Tomonaga—Oct, 3; H. B. Vickory—Jan, 3; W. Weaver, A. Wetmore—Mar, 3; C. A. G. Wiersma—Sep, 3; R. B. Woodward—Oct, 3

deaths, of members of the Institute of Medicine: F. S. Jaffe—Jan, 3; J. H. Knowles—May, 3

Decennial Census Plans, Committee on National Statistics Panel on: see *Counting the People in 1980*

Deep Sea Drilling Project: see *Continental Margins; Continental Scientific Drilling Program*

Defense, U.S. Department of: see *Exposure at*

Tests of Nuclear Weapons; Flammability, Smoke, Toxicity, and Corrosive Gases of Electric Cable Materials; Ion Implantation Demand/Conservation Panel, Committee on Nuclear and Alternative Energy Systems: see *Alternative Energy Demand Futures*

Department of Energy: Some Aspects of Basic Research in the Chemical Sciences, report to the U.S. Department of Energy by the Committee on Chemical Sciences, National Research Council Assembly of Mathematical and Physical Sciences; the committee evaluated the department's program of basic research in chemistry and found a need for better understanding of basic chemical and physical processes underlying energy-production technologies. Among recommendations: need for greater emphasis on studying fundamental processes of coal chemistry, continuing the department's current emphasis on basic research on combustion processes, increasing support for researchers from outside the department, and making the department's laboratories available to chemists from industry and universities—Jun, 1

DHEW's [U.S. Department of Health, Education, and Welfare's] Research Planning Principles: A Review, Committee to Review DHEW's Research Planning Principles, National Academy of Sciences Institute of Medicine; the department sought the committee's views on draft principles intended to guide development of a five-year plan for allocating DHEW support of research in the health sciences. The committee strongly endorsed the principle of long-range planning but found several important issues not resolved or considered in the draft principles; among recommendations: the department should consider research activities and needs of other Federal agencies, further attention should be given to defining the appropriate relationship between the National Institutes of Health's intramural and extramural activities, and the department should consider fiscal problems involved in attempting to provide stable support for established investigators without limiting opportunities for new researchers—Jul, 1

Diesel Impacts Study Committee, National Research Council Assembly of Engineering; the committee was established at the request of the Office of Science and Technology Policy and with support from the Environmental Protection Agency and the Departments of Transportation and Energy to study implications of a shift to diesel-powered passenger cars and to consider effects on health, the natural environment, and the economy during the period 1985-2000—Aug, 1

Disinfection of Drinking Water, Subcommittee on Efficacy of Disinfection, Safe Drinking Water Committee, Board on Toxicology and Environmental Health Hazards, National Research Council Assembly of Life Sciences; the subcommittee's study for the Environmental Protection Agency examined the biocidal activity and other characteristics of common and potential disinfection methods. At present only chlorination, ozonation, and the use of chlorine dioxide satisfy all requirements; however, the subcommittee stressed that final choice of any disinfectant must consider, in addition to efficacy, evaluation of by-products of the disinfectants, of toxicity, and of economic factors—Aug, 2

Draffin, Cyril W., quoted: see *Critical Issues in Coal Transportation Systems*
 Drake, Charles L., past chairman of U.S. Geodynamics Committee: see *Continental Scientific Drilling Program*
Drinking Water and Health, 1977 report of the National Research Council Safe Drinking Water Committee; cited; see *Toxicity of Selected Drinking Water Contaminants*

Economic affairs: see *Alternative Energy Demand Futures*; *Counting the People in 1980*; *Critical Issues in Coal Transportation Systems*; *Engineering at the Ends of the Earth*; *Evaluating Federal Support for Poverty Research*; *Impact of Taxation on Energy Markets*; *Job Evaluation*; *Medical Technology and the Health Care System*; *NRC Transbus Study*; *Public Involvement in Maritime Facility Development*; *Science and Technology*; *Taxonomy of Energy Taxes*; *Transportation Development and Land Use Planning*; *U.S. Energy Supply Prospects*
 education: see *Climbing the Academic Ladder*; *Conference on Adolescent Behavior and Health*; *Continuity in Academic Research Performance*; *Science and Technology*; *State of School Science*
 Education and Employment of Women in Science and Engineering, Committee on: see *Analysis of Industry Recruitment of Women Scientists*; *Climbing the Academic Ladder*
 Einspruch, Norman G., chairman of Solid State Sciences Committee panel: see *Microstructure Science, Engineering, and Technology*
 Einstein, Albert: see *Albert Einstein Memorial elections*, Institute of Medicine: 36 U.S. health professionals and scientists were elected to first five-year terms beginning Jan 1, 1980, and 3 others were elected directly to senior membership; new members are: H. L. Abrams, J. E. Affeldt, J. C. Beck, K. S. D. Bergstrom, J. E. G. Blanpain, E. R. Blout, H. K. H. Brodie, C. D. Clemente, W. P. Daines, R. H. Egdahl, C. M. Fagin, H. S. Frazier, E. Frei III, J. C. Greene, C. Grobstein, J. A. Gronvall, M. M. Karl, M. Katz, L. Kirkland, J. K. Kittredge, G. Levy, K. L. Melmon, H. N. Newman, K. A. Platt, C. Prout, M. T. Rabkin, P. G. Rogers, A. A. Scitovsky, B. H. Scribner, E. Shanas, H. R. Shinefield, D. C. Shreffler, A. J. Solnit, J. P. Swazey, H. A. Tyroler, F. E. Young; new senior members are: J. Axelrod, H. Hillenbrand, D. K. Price—Dec, 6
 elections, National Academy of Engineering: Samuel C. Phillips was elected to a second term on the Academy's governing Council; newly elected as councillors were James C. Fletcher, George M. Low, and Michael Tenenbaum (succeeding Ralph Landau, Joseph M. Pettit, and Robert M. White). Three-year terms for the councillors began July 1—Jul, 1; 99 U.S. engineers were elected to membership and 18 engineers were named foreign associates; new members are: M. R. Aaron, H. Allen, J. G. Anderson, T. L. Austin, Jr., J. G. Baker, B. B. Berger, D. C. Berkey, F. H. Blecher, W. S. Bloor, O. C. Boileau, M. Boudart, A. P. Bray, B. Bresler, J. Cocke, J. B. Cooke, S. R. Cray, L. Crocco, C. DuP. Donaldson, H. G. Drickamer, P. Duwez, P. Elias, R. R. Everett, F. J. Feely,

Jr., I. Finnie, I. K. Fischer, F. Freudenstein, Y.-C. B. Fung, A. P. Gage, T. V. Galambos, R. G. Gallager, W. J. Galloway, W. E. Gasich, E. A. Gee, E. I. Gordon, F. L. Goss, A. S. Grove, M. T. Halbouty, G. A. Hathaway, G. H. Heilmeier, D. G. Hoag, K. F. Holtby, F. J. Hooven, B. M. Horton, W. J. Howard, K. E. Iverson, F. G. Jaicks, N. Jarrett, B. G. Johnston, E. R. Kane, B. H. Kear, G. H. Keulegan, E. W. Kimbark, L. K. Kirchmayer, H. B. Law, E. N. Lightfoot, Jr., W. K. Linvill, A. L. London, P. B. MacReady, Jr., M. V. Mathews, R. D. Maurer, J. S. Mayo, B. McClelland, W. J. McCune, Jr., A. B. Metzner, A. S. Michaels, Lt. Gen. J. W. Morris, W. R. Murden, Jr., R. B. Neal, J. K. Northrop, R. Adm. E. J. Peltier, M. S. Plesset, J. M. Prausnitz, W. D. Rannie, I. S. Reed, W. C. Reynolds, T. B. Robinson, O. H. Schmitt, M. R. Schroeder, E. E. Sechler, O. D. Sherby, P. G. Shewmon, H. E. Singleton, E. Snitzer, R. Adm. J. E. Snyder, Jr., A. Squire, F. M. Staszkesy, T. Stern, M. Summerfield, C. E. Taylor, D. M. Tellep, M. P. Tulin, A. S. Veletsos, M. E. Wadsworth, E. W. Weber, W. F. Weeks, L. R. Welch, R. H. Wentorf, Jr., J. H. Wernick, J. M. West—May, 2; new foreign associates are: H. E. M. Barlow, P. V. Bruel, A. S. Eklund, J. S. Forrest, T. Fuwa, P. M. Germain, G. W. Govier, M. Hug, J. Krishna, M. Magnien, W. Marshall, Sir C. Oatley, Sir A. Paton, Sir O. Saunders, S. S. Silver, I. Tani, Sir F. Whittle, F. Yoshida—May, 7
 elections, National Academy of Sciences: Bryce Crawford, Jr., was elected to a four-year term as home secretary, succeeding David R. Goddard; elected to three-year terms on the Academy's governing Council were: Paul Berg, Herbert Friedman, William A. Nierenberg, and Lewis Thomas, succeeding Philip W. Anderson, Albert L. Lehninger, DeWitt Stetten, Jr., and Frank H. Westheimer. All terms of office began July 1—Apr, 1; 60 U.S. scientists were elected to membership and 15 scientists were named as foreign associates at annual meeting; new members are: P. L. Adkisson, H. M. Agnew, K. Aki, G. G. Ashwell, R. Austrian, V. Bargmann, F. C. Bartter, F. Basolo, J. Berkson, K. H. Beyer, Jr., O. Björkman, E. Boyse, E. Burstein, K.-C. Chang, R. W. Clough, S. N. Cohen, H. Craig, H. F. DeLuca, J. M. Diamond, R. W. Estabrook, C. L. Fefferman, E. C. Franklin, S. Gluecksohn-Waelsch, P. A. Griffiths, W. A. Hagins, R. P. Hanson, G. Henle, E. M. Henley, I. J. Hirsh, G. P. Hochschild, H. D. Holland, H. A. Itano, T. S. Kuhn, P. Leder, Y. T. Lee, P. C. Martin, M. M. Mayer, J. W. Miles, D. Nathans, M. Nerlove, N. D. Newell, D. L. Oliver, G. H. Pettengill, M. Ptashne, N. C. Rasmussen, D. M. Raup, A. G. Redfield, B. Roizman, I. A. Rose, M. R. Rosenzweig, L. S. Shapley, R. L. Sidman, J. H. Sinfelt, M. F. Singer, G. A. Somorjai, E. Sternberg, E. Z. Vogt, S. Weinhouse, R. W. Wilson, G. A. Zentmeyer—Jul, 2; new foreign associates are: N. Bartlett, D. O. Hebb, J. R. Hicks, Sir A. F. Huxley, P. Joliot, M. S. Longuet-Higgins, M. Lyon, D. J. McLaren, Sir G. J. V. Nossal, A. Robertson, A. Salam, J.-P. Serre, R. Y. Stanier, C. A. G. Wiersma, Y. B. Zeldovich—Jul, 3
Emergency Medical Services at Midpassage, Committee on Emergency Medical Services, Division of Medical Sciences, Assembly of

Life Sciences, National Research Council; the committee examined the progress—and the problems—of emergency care systems in its study for the Robert Wood Johnson Foundation. Local awareness of public need for emergency medical care has increased (use of hearses for emergency medical care has almost disappeared, for example), but problems continue. Standards mandated by the Emergency Medical Services Systems Act of 1973 have proven not adaptable to a wide variety of demographic, geographic, economic, and other conditions, and there is a need for current standards that allow adaptation of performance-standards to local conditions. The committee urged study of the effects of emergency medical systems on regionalization and categorization of hospitals and recommended that future planning include plans for financing projects after grant money runs out—Mar, 8
Emergency Medical Services Systems Act of 1973 (Pub. L. 93-154): see *Emergency Medical Services at Midpassage*
 energy: see *Alternative Energy Demand Futures*; *Continental Scientific Drilling Program*; *Critical Issues in Coal Transportation Systems*; *Department of Energy: Some Aspects of Basic Research in the Chemical Sciences*; *Diesel Impacts Study Committee*; *Engineering at the Ends of the Earth*; *Evaluation of DOE Research on Health Effects of Ionizing Radiation*; *Impact of Taxation on Energy Markets*; *Risks Associated with Nuclear Power*; *Science and Technology*; *Taxonomy of Energy Taxes*; *Tropical Legumes*; *U.S. Energy Supply Prospects*; *Workshop on Concepts of Uranium Resources and Producibility*
 Energy, U.S. Department of: see *Department of Energy: Some Aspects of Basic Research in the Chemical Sciences*; *Diesel Impacts Study Committee*; *Evaluation of DOE Research on Health Effects of Ionizing Radiation*; *Exposure at Tests of Nuclear Weapons*; *Impact of Taxation on Energy Markets*; *Risks Associated with Nuclear Power*
 Energy Research and Development Administration: see *Risks Associated with Nuclear Power*
 Engineering, National Research Council Assembly of: H. Guyford Stever succeeded National Academy of Engineering president Courtland D. Perkins as chairman of the assembly on February 1—Apr, 8; new projects announced: Committee on Future Energy Alternatives for Puerto Rico; Engineering Panel on PAVE PAWS [Phased-Array Radar Warning System] Radiation (in cooperation with Assembly of Life Sciences); Study of Criteria for Establishing Coal Research Laboratories in Universities—Feb, 5; study to suggest guidelines for the development of regulations for requiring best available and safest technologies on offshore drilling and production operations; Technical Review of DOE Drilling R&D Management Plan—July, 3; Diesel Impacts Study Committee; Study of Experimental Techniques for the Investigation of the Degradation of Electrical Insulation—Aug, 3; Ad Hoc Committee on National Transonic Facility; Evaluation of NASA's Aircraft Energy Efficiency Technology Program—Sep, 3; see also *Diesel Impacts Study Committee*; *Engineering at the Ends of the Earth*; *Engineering for Deep Sea Drilling*

- for Scientific Purposes; Medical Technology and the Health Care System; Radiation Intensity of the PAVE PAWS Radar System
- Engineering at the Ends of the Earth: Polar Ocean Technology for the 1980's, Panel on Polar Ocean Engineering, Marine Board, National Research Council Assembly of Engineering; excerpts—Nov, 3
- Engineering for Deep Sea Drilling for Scientific Purposes: Interim Report, Marine Board Committee on Engineering Considerations for Continuation of Deep Sea Drilling for Scientific Purposes, Assembly of Engineering, National Research Council; the committee, in advising the National Science Foundation on a new program to succeed the Deep Sea Drilling Project (due to end in 1980), recommended drilling deeper and in situations more difficult than those currently encountered by the *Glomar Challenger*. Immediate attention should be given to a program involving "system management and integration," and "systems engineering should be undertaken at the earliest possible date . . . [for the] assurance of safety and protection of the environment." The committee felt that a surface ship, rather than a semi-submersible or a submarine, would be the most feasible drilling platform, and recommended the *Glomar Explorer* as a "serious candidate"—Mar, 2
- Engelbrecht, Richard S., chairman of Safe Drinking Water Committee subcommittee: see *Disinfection of Drinking Water* environment: see *Atmospheric Aldehydes*; *Continuing Quest*; *Department of Energy: Some Aspects of Basic Research in the Chemical Sciences*; *Diesel Impacts Study Committee*; *Engineering at the Ends of the Earth*; *Environmental Regulation and Technological Innovation*; *Environmental Research and Development*; *Geochemistry and the Environment*; *Indoor Pollutants*; *Odors*; *Polychlorinated Biphenyls*; *Risks Associated with Nuclear Power*; *Science and Technology*; *World Climate Conference*
- Environmental Protection Agency: see *Atmospheric Aldehydes*; *Chemistry of Disinfectants in Water*; *Diesel Impacts Study Committee*; *Disinfection of Drinking Water*; *Environmental Regulation and Technological Innovation*; *Environmental Research and Development*; *Indoor Pollutants*; *Odors*; *Polychlorinated Biphenyls*; *Toxicity of Selected Drinking Water Contaminants*
- Environmental Regulation and Technological Innovation, Environmental Studies Board Committee on, National Research Council Commission on Natural Resources; a new study, supported by the Environmental Protection Agency, will assess the effectiveness of Federal environmental regulations in encouraging the development of new pollution-control technology—Feb, 1
- Environmental Research and Development, Environmental Studies Board Committee on, National Research Council Commission on Natural Resources; some studies of the environment may be duplicated and others may never be undertaken because various Federal agencies support various studies for various purposes with little coordination of programs or objectives. The committee's report to the Office of Science and Technology Policy recommended a set of criteria for determining needs and priorities involving a "framework of articulation of goals, assessment of the state-of-knowledge, and setting of priorities" which, "if judiciously applied, . . . should contribute substantially to a more effective review, integration, and coordination of research programs"—study announced, Feb, 1; reported, Sep, 6
- Environmental Studies Board: see *Environmental Regulation and Technological Innovation*; *Environmental Research and Development*; *Polychlorinated Biphenyls*
- Epidemiological Studies of Cancer Frequency and Certain Organic Constituents of Drinking Water—A Review of Recent Literature, Published and Unpublished, Subcommittee on Epidemiology, Committee on Safe Drinking Water, Board on Toxicology and Environmental Health Hazards, Assembly of Life Sciences, National Research Council; excerpts—Jan, 6
- Epidemiology, Committee on Safe Drinking Water Subcommittee on: see *Epidemiological Studies of Cancer Frequency*
- Epidemiology and Veterans Follow-up Studies, Committee on: see *Exposure at Tests of Nuclear Weapons*
- Equal Employment Opportunity Commission: see *Job Evaluation*
- Evaluating Federal Support for Poverty Research, Committee on Evaluation of Poverty Research, National Research Council Assembly of Behavioral and Social Sciences; excerpt—Oct, 3
- Evaluation of DOE [U.S. Department of Energy] Research on Health Effects of Ionizing Radiation, Committee on, National Research Council Assembly of Life Sciences; the committee was formed at the request of the Energy Department to examine the scientific merit and the management of research conducted under the department's research program on effects of human exposure to low-level ionizing radiation, including levels found in nuclear power plants and in nuclear research—Mar, 1
- Evaluation of Industrial Hazards, Committee on: see *Causes and Prevention of Grain Elevator Explosions*
- Exposure at Tests of Nuclear Weapons, Subcommittee on, Medical Follow-up Agency Committee on Epidemiology and Veterans Follow-up Studies, National Research Council Assembly of Life Sciences; subcommittee formed to gather data on participants and kinds of radiation exposures of military personnel who were present at approximately 300 U.S. above-ground nuclear-weapons tests during the 1950s. The study, for the Departments of Energy and Defense, grew out of concerns over reported high incidence of leukemia among participants in one test, code-named SMOKY, and was to try to determine whether the apparent leukemia risk applies to participants in other tests and whether test-related risks of other forms of cancer are demonstrable—Sep, 1
- Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S. Code 135-136): see *Polychlorinated Biphenyls*
- Flammability, Smoke, Toxicity, and Other Gases of Electric Cable Materials (NAB-342), Task Force on Flammability, Smoke, Toxicity, and Corrosive Gases of Electric Cable Materials, National Materials Advisory Board, National Research Council Commission on Sociotechnical Systems; the most widely used insulating materials for electric cables and wires often produce toxic or corrosive combustion products, the task force told the Department of Defense and the National Aeronautics and Space Administration, but there are few immediate alternatives to their continued use. Most research has been directed toward modifying conventional materials to reduce their flammability, and the few fire-resistant insulating materials that have been developed are too expensive for most applications. Future research should deal with these problems; in the meantime, the task force emphasized the necessity of better fire detection to stop fires before they produce hazardous effects—Jul, 4
- Flood of 31 July 1976 in Big Thompson Canyon, Colorado, report to the Committee on Natural Disasters, National Research Council Commission on Sociotechnical Systems, by D. B. Simons, et al.: excerpts—Jun, 4
- Food, Drug, and Cosmetic Act (21 U.S. Code 348 et seq.): see *Food Safety Policy*
- Food and Agricultural Act of 1977 (Pub.L. 95-112): see *Role of the U.S. Department of Agriculture in Aquaculture*
- Food and Agriculture Organization: see *Postharvest Food Losses*
- Food and Nutrition Board: see *Sodium-Restricted Diets*
- food resources: see *Postharvest Food Losses in Developing Countries*; *Role of the U.S. Department of Agriculture in Aquaculture*; *Tropical Legumes*
- Food Safety Policy: Scientific and Societal Considerations. Part 2 of a Two-Part Study, Panel II, Food Safety Regulation and Societal Impact, Committee for a Study on Saccharin and Food Safety Policy, National Academy of Sciences Institute of Medicine and National Research Council Assembly of Life Sciences; the panel examined food-safety issues against the background of a confusing legal framework, changing food technology, and the current state of the science and technology that assesses food-safety problems. The report recommends extensive amendments to the current law to devise a single policy that would apply to all foodstuffs, food additives, and food contaminants; that would give the Food and Drug Administration flexibility to consider benefits as well as risks when evaluating a questionable substance; that would make possible an option other than the absolute ban of a substance; and that would permit the categorization of substances into low-, moderate-, or high-risk groups. There was dissent within the panel, and the report left several issues unresolved, but, as Institute of Medicine President David Hamburg stated in a preface to the report, "Those who have conducted the study view this as one step in a continuing process by which scientific knowledge of food benefits and risks can

Farber, Immanuel, panel chairman of the Committee for a Study on Saccharin and Food Safety Policy; see *Saccharin: Technical Assessment of Risks and Benefits*

become deeper and the links of this knowledge to reasonable policy-making made stronger"—May, 1

Frank, Robert, chairman: *see Atmospheric Aldehydes*

Fuller, John W., chairman of Transportation Research Board Technical Review Panel; *see Truck Size and Weight*

Gann, Donald S., committee chairman: *see Emergency Medical Services at Midpassage*

Geochemistry, U.S. National Committee for: *see Geochemistry and the Environment*

Geochemistry and the Environment. Volume III: Distribution of Trace Elements Related to the Occurrence of Certain Cancers, Cardiovascular Diseases, and Urolithiasis, report of the workshop at South Seas Plantation, Captiva Island, FL, October 6-11, 1974; Subcommittee on the Geochemical Environment in Relation to Health and Disease, U.S. National Committee for Geochemistry, National Research Council Assembly of Mathematical and Physical Sciences; each of the three groups of diseases examined varies geographically, suggesting local geochemical influences, but incidence may be coincidental, and current epidemiological studies are flawed by deficiencies in data or analysis. Participants recommended further study of geochemical influences on health. More needs to be known about foods from plants, including how plants absorb nutrients and trace elements from soil and water, and the participants recommended using advanced statistical methods to analyze larger amounts of data—Mar, 4

Geodynamics Committee, U.S.: *see Continental Scientific Drilling Program*

Geological and Geophysical Research Needs and Problems of Continental Margins: *see Continental Margins*

Geological Survey, U.S.: *see Continental Margins; Workshop on Concepts of Uranium Resources and Producibility*

Geophysics Research Board: *see Impact of Technology on Geophysics*

Geophysics Study Committee: *see Impact of Technology on Geophysics*

German Democratic Republic: *see National Academy of Sciences*

Gluzman, Semyon: *see Human Rights*

Goldberg, Leo, chairman of American delegation to the People's Republic of China: *see Astronomy in China*

Gomory, Ralph E., chairman of National Academy of Sciences study group: *see Science and Technology*

Griffin, Herschel, chairman of Assembly of Engineering panel: *see Diesel Impacts Study Committee*

Grobstein, Clifford, panel cochairman, Committee for a Study on Saccharin and Food Safety Policy: *see Food Safety Policy*

Grodzins, Leo, chairman of Committee on a Study of Postdoctorals and Doctoral Research Staff in Science and Engineering: *see Nonfaculty Doctoral Research Staff*

Grote, Claus: *see National Academy of Sciences*

Halver, John E., cochairman of Board on Agriculture and Renewable Resources panel: *see Role of the U.S. Department of Agriculture in Aquaculture*

Hamburg, David, president, Institute of Medicine, quoted: *see Food Safety Policy; see also Institute of Medicine*

Handler, Philip, president, National Academy of Sciences: *see Food Safety Policy; see also National Academy of Sciences*

Harris, DeVerle P., quoted: *see Workshop on Concepts of Uranium Resources and Producibility*

Hart, Ronald W., cochairman of new Board on Toxicology and Environmental Health Hazards committee: *see Indoor Pollutants*

Hazardous Substances in the Laboratory, Committee on, National Research Council Assembly of Mathematical and Physical Sciences; the new study group was formed to assess laboratory hazards and to prepare a guide to safe handling of chemicals in research and teaching laboratories. The committee is considering acute and chronic toxicity, high reactivity, and flammability of chemicals, and also will examine epidemiological studies of chronic illness among laboratory personnel. The guide is intended to consider storage and disposal of hazardous chemicals, emergency procedures, and needs for record-keeping and for medical surveillance of laboratory personnel. Sponsors are the American Chemical Society, the Alfred P. Sloan Foundation, and the Manufacturing Chemists Association—May, 1

health: *see Analysis of the Exposure Levels and Potential Biologic Effects of the PAVE PAWS Radar System; Assessment of Scientific Opportunities in Alcohol-Related Research; Atmospheric Aldehydes; Cancer in China; Causes and Prevention of Grain Elevator Explosions; Chemistry of Disinfectants in Water; Conference on Adolescent Behavior and Health; DHEW's Research Planning Principles; Diesel Impacts Study Committee; Disinfection of Drinking Water; Environmental Research and Development; Evaluation of DOE Research on Health Effects of Ionizing Radiation; Evaluation of HEW Research Planning Principles; Exposure at Tests of Nuclear Weapons; Food Safety Policy; Geochemistry and the Environment; Hazardous Substances in the Laboratory; Indoor Pollutants; Life Beyond the Earth's Environment; Medical Technology and the Health Care System; Odors from Stationary and Mobile Sources; Polychlorinated Biphenyls; Radiation Intensity of the PAVE PAWS Radar System; Risks Associated with Nuclear Power; Saccharin: Technical Assessment of Risks and Benefits; Science and Technology; Sleeping Pills, Insomnia, and Medical Practice; Sodium-Restricted Diets; Toxicity of Selecting Drinking Water Contaminants*

Health, Education, and Welfare, U.S. Department of: *see DHEW's Research Planning Principles; Food Safety Policy; Saccharin: Technical Assessment of Risks and Benefits*

Herring, W. Conyers, chairman of the National Academy of Sciences Steering Committee for the Nuclear Risk Survey: *see Risks Associated with Nuclear Power*

Hocott, Claude R., chairman: *see Engineering for Deep Sea Drilling for Scientific Purposes*

Hopps, Howard C., workshop chairman: *see Geochemistry and the Environment*

Hornig, Lilli S., chairman of Committee on the Education and Employment of Women in Science and Engineering: *see Analysis of Industry Recruitment of Women Scientists; Climbing the Academic Ladder*

House, Herbert O., chairman: *see Hazardous Substances in the Laboratory*

Human Resources, National Research Council Commission on: new projects announced: Committee on Continuity in Academic Research Performance—Jul, 3; Committee on the Employment of Foreign Scientists in the United States—Aug, 3; Postdoctoral Fellowship for Minorities—Sep, 3; Analysis of Industry Recruitment of Women Scientists—Nov, 3; *see also Analysis of Industry Recruitment of Women Scientists; Climbing the Academic Ladder; State of School Science*

Human Rights, National Academy of Sciences Committee on; appealed in July for the release of Russian psychiatrist Semyon Gluzman, who was imprisoned in 1972 apparently for refusing official requests to participate in the psychiatric persecution of others. The committee urged scientists to write to Soviet officials on Gluzman's behalf. Earlier in the year the committee asked U.S. scientists to send scientific literature and personal messages to three other imprisoned Russian scientists (S. A. Kovalev, Y. F. Orlov, and A. B. Shcharanskiy) and their families. "A prisoner may not receive all the letters and packages," the committee said, "but he may become aware of their existence, and this can be a great psychological comfort"—Sep, 1; in August, issued a joint statement with the Committee on Scientific Freedom and Responsibility of the American Association for the Advancement of Science requesting the government of Argentina to provide information about 14 "disappeared" scientists, engineers, physicians, and students—Nov, 1

Impact of Maritime Services on Local Populations, Committee on: *see Public Involvement in Maritime Facility Development*

Impact of Taxation on Energy Markets, Steering Committee on, National Research Council Assembly of Behavioral and Social Sciences; the committee was formed in response to a request from the Department of Energy to prepare a classification of Federal, state, and local taxes that directly affect supply of and demand for energy and for specific fuels, and to determine what analyses should be performed to assess the effects of various taxes on fuel prices, exploration for and development of energy resources, and on investment in the energy industry—Jun, 1; *see also Taxonomy of Energy Taxes*

Impact of Technology on Geophysics (Studies in Geophysics), Panel on Impact of Technology on Geophysics, Geophysics Study Committee, Geophysics Research Board, National Research Council Assembly of Mathematical and Physical Sciences; research in geophysics cannot proceed independent of

developments in and without contributions from other fields, according to papers presented at a 1977 meeting of the American Geophysical Union and later work by the panel. Future advancements will come from larger and faster computers for modeling purposes, from the "global perspective" provided by satellites, and from improvements in drilling technology and borehole instrumentation. The panel found no systematic way in which new technologies can find use in geophysics, but felt that geophysics can be well served by better communication among disciplines through scientific and technological societies and journals—Nov, 14

Indoor Pollutants. Committee on, Board on Toxicology and Environmental Health Hazards, National Research Council Assembly of Life Sciences; committee formed to study—for the Environmental Protection Agency—potentially hazardous pollutants found in homes and in public buildings, to examine possible methods and costs of controlling indoor pollutants, and to consider needs of highly-susceptible people—Oct, 1

Institute of Medicine, National Academy of Sciences: president David A. Hamburg announced in the spring that he would not seek appointment to a second five-year term when his current term ends in October 1980; a search committee, chaired by William H. Danforth, was formed by the Institute's Council to nominate a successor—Jul, 1; new projects announced: Board on Health Planning; Committee for the Evaluation of HEW Research Planning Principles; Reabstracting Study of Results of the National Hospital Discharge Survey—Jan, 2; Clinical Investigation in Developing Countries; Study of Patient Package Inserts—Feb, 5; Assessment of Scientific Opportunities in Alcohol-Related Research—Jun, 3; U.S. Health Goals for the Year 2000—Nov, 3; Revson Conference in Biomedical Research Policy—Dec, 3; *see also* deaths, of members of the Institute of Medicine; *Conference on Adolescent Behavior and Health*; elections, Institute of Medicine; Evaluation of HEW Research Planning Principles; Assessment of Scientific Opportunities in Alcohol-Related Research; *DHEW's Research Planning Principles*; *Medical Technology and the Health Care System*; *Saccharin: Technical Assessment*; *Sleeping Pills*

international affairs: *see Astronomy in China*; *Cancer in China*; *Continuing Quest*; Human Rights, National Academy of Sciences Committee on; National Academy of Sciences; *Postharvest Food Losses in Developing Countries*; *Proceedings of a Workshop on Procedures for Marine Scientific Activities in a Changing Environment*; *Science and Technology*; *Strategy for Exploration of the Inner Planets*; *Toward a U.S. Climate Program Plan*; *Tropical Legumes*; *U.S. Energy Supply Prospects*; World Climate Conference

International Council of Scientific Unions: *see World Climate Conference*

International Decade of Ocean Exploration: *see Continental Margins*; *Continuing Quest*

International Geodynamics Project: *see Continental Scientific Drilling Program*

International Relations, National Research Council Commission on; new projects announced: Joint Workshop on Control of Aquatic Weeds in Canals—Mar, 3; Advisory Committee on the Sahel—May, 3; Workshop

on Coordination of International Oceanographic Research—Aug, 3; Panel on Science and Technology in Jordanian Development; Panel on the Water Buffalo: Its Potential for Developing Countries; Workshop on Technology for Increasing Rural Productivity—Sep, 3; Panel on the Productive Utilization of Wastes in Developing Countries—Oct, 5; Potential of Alcohol Fuels in Developing Countries—Nov, 3; Cooperative Activities in Indonesia on Science, Technology, and Research Policy Development; Panel for Mauretanian Environmental Workshop; Study of Aerial Seeding of Forests; Rangeland Revegetation; Workshop on Costa Rican Energy Development—Dec, 3; *see also Astronomy in China*; *Cancer in China*; *Postharvest Food Losses in Developing Countries*; *Proceedings of a Workshop on Procedures for Marine Scientific Activities in a Changing Environment*; *Tropical Legumes*

Ion Implantation as a New Surface Treatment Technology (NMAB-349). Committee on Ion Implantation and Competing Surface Treatment Technologies, National Materials Advisory Board, National Research Council Commission on Sociotechnical Systems; ion implantation—which alters the chemical composition of the implanted surface (unlike electroplating, which merely adds a coating)—"has shown a potential" for at least ten-fold improvement in metal-surface resistance to wear and corrosion, the committee reported in a study for the Department of Defense, but the committee also said that, at present, caution must temper excitement. There is "no way to predict behavior" of ion-implanted surfaces; the committee urged further study to achieve "an adequate understanding of the atomic phenomena that cause the observed improvements" and also recommended that university departments of metallurgy be involved in the needed research and that funding arrangements include provisions for acquisition of ion accelerators—Oct, 4

Job Evaluation: An Analytic Review. Interim Report to the Equal Employment Opportunity Commission, staff paper prepared by Donald J. Treiman for the Committee on Occupational Classification and Analysis, Assembly of Behavioral and Social Sciences, National Research Council; excerpt—Aug, 5

Johnson, Philip L., chairman of new Environmental Studies Board committee; *see Environmental Research and Development*

Kaplan, Henry S., "Conclusion: Recommendations for Future Exchanges and Assessment of the Visit," excerpt; *see Cancer in China*

Keyes, Robert W., chairman of committee of National Materials Advisory Board: *see Ion Implantation*

Keyfitz, Nathan, chairman of Panel on Decennial Census Plans: *see Counting the People in 1980*

Kovalev, Sergey A.: *see Human Rights*

Laboratory Animal Housing, proceedings of a symposium at Hunt Valley, Md., September 22-23, 1976, Committee on Laboratory Animal Housing, Institute of Laboratory Animal Resources, Division of Biological Sciences, National Research Council Assembly of Life Sciences; excerpt—Mar, 5

law: *see Food Safety Policy*; *NRC Transbus Study*; *Odors*; *Polychlorinated Biphenyls*; *Privacy and Confidentiality*; *Truck Size and Weight*

Life Beyond the Earth's Environment: The Biology of Living Organisms in Space, Committee on Space Biology and Medicine, Space Science Board, National Research Council Assembly of Mathematical and Physical Sciences; excerpts—Nov, 7

Life Sciences, National Research Council Assembly of: new projects announced: Multiple Immunizations; Panel on the Extent of Radiation from the PAVE PAWS [Phased-Array Warning System] Radar System (in cooperation with Assembly of Engineering)—Feb, 5; Atmospheric Aldehydes; Evaluation of DOE [U.S. Department of Energy] Research on Health Effects of Ionizing Radiation—Mar, 3; Binational (United States and Italy) Cooperative Study of Exposure to TCDD (Dioxin)—Apr, 2; Review and Evaluation of the Jackson Laboratory Rabbit Resources—Jun, 3; Chemicals Used in Food Processing; Study of Human Health Effects of Subtherapeutic Antibiotic Use in Animal Feeds—Jul, 3; Studies of Participants in Nuclear Tests—Sep, 3; Committee on Alkyl Benzene Derivatives; Committee on Indoor Pollutants—Oct, 5; *see also Analysis of the Exposure Levels and Potential Biologic Effects of the PAVE PAWS Radar System*; *Atmospheric Aldehydes*; *Chemistry of Disinfectants in Water*; *Disinfection of Drinking Water*; *Emergency Medical Services at Midpassage*; *Epidemiological Studies of Cancer Frequency*; Evaluation of DOE Research on Health Effects of Ionizing Radiation; Exposure at Tests of Nuclear Weapons; Indoor Pollutants; *Laboratory Animal Housing*; *Odors from Stationary and Mobile Sources*; *Saccharin: Technical Assessment of Risks and Benefits*; *Sodium-Restricted Diets*; *Toxicity of Selected Drinking Water Contaminants*

London, Irving M., chairman of Institute of Medicine committee: *see DHEW's Research Planning Principles*

Malone, Thomas F.: *see National Academy of Sciences*

Manufacturing Chemists Association: *see Hazardous Substances in the Laboratory*

Margolin, Edward, Maritime Transportation Research Board committee chairman: *see Critical Issues in Coal Transportation*

Marine Board: *see Engineering at the Ends of the Earth*; *Engineering for Deep Sea Drilling for Scientific Purposes*

Maritime Transportation Research Board: *see Critical Issues in Coal Transportation Systems*; *Public Involvement in Maritime Facility Development*

Mathematical and Physical Sciences, National Research Council Assembly of: new projects announced: High Temperature Science: Future Needs and Anticipated Developments—Jan, 2; Panel on Strategic Missile Firing Submarine (SSBN) Technology; Subcommittee on Nuclear and Radiochemistry—Feb, 5; Committee on International Climate Programs; Panel on the Effective Use of Climate Information in Government Decision-Making—Mar, 3; Astronomy Survey Committee; Panel on Applied Mathematics Research Alternatives for the Navy—Apr, 2; Committee on Hazardous Substances in the Laboratory; Requirements for a Dedicated Gravity Satellite—May, 3; Steering Committee on the Impact of Taxation on Energy Markets—Jun, 3; Climate Research Board Summer Study to Review the U.S. Climate Program Plan—Jul, 3; Committee on the Role of the Polar Regions in Climatic Change; Panel on Crustal Movement Measurements; Panel on the Global Positioning System; Panel on Gravity Field and Sea Level; Panel on a Multipurpose National Cadastre; Panel to Review the 1973 Federal Mapping Task Force Report on Mapping, Charting, and Surveying—Aug, 3; Panel on Precipitation Processes—Sep, 3; Ad Hoc Panel on Polymer Science and Engineering; Panel on Pre-Pleistocene Climates; Panel on Scientific Basis of Water Resource Management; Panel on Sun, Weather, and Climate; Special Study of Rock Mechanics Research Requirements; Carbon Dioxide and Climate Change: A Scientific Assessment—Oct, 5; *see also* Continental Margins; Continental Scientific Drilling Program; Department of Energy: Some Aspects of Basic Research in the Chemical Sciences; Geochemistry and the Environment; Hazardous Substances in the Laboratory; Impact of Technology on Geophysics; Life Beyond the Earth's Environment; Microstructure Science, Engineering, and Technology; Strategy for Exploration of the Inner Planets; Strategy for Space Astronomy and Astrophysics

Maxwell, John C., chairman of U.S. Geodynamics Committee: *see* Continental Scientific Drilling Program

McMillan, Brockway, chairman of Assembly of Engineering panel: *see* Radiation Intensity of the PAVE PAWS Radar System

Medical Follow-up Agency, National Research Council Assembly of Life Sciences: *see* Exposure at Tests of Nuclear Weapons

Medical Technology and the Health Care System: A Study of the Diffusion of Equipment-Embodied Technology, Committee on Technology and Health Care, National Research Council Assembly of Engineering/National Academy of Sciences Institute of Medicine; the committee's study for the National Science Foundation examined costs and effectiveness of processes by which new medical equipment and related technologies are adopted and used in health care. Current medical reimbursement policies increase competition among health-care institutions and encourage specialization of health-care manpower. The committee urged revision of these policies and recommended establishment of a national body for evaluating and reporting on costs and effectiveness of new technologies—Jun, 9

Meyer, Peter, chairman of Space Science Board

committee: *see* Strategy for Space Astronomy and Astrophysics

Microstructure Science, Engineering, and Technology, Panel on Thin-Film Microstructure Science and Technology, Solid State Science Committee, National Research Council Assembly of Mathematical and Physical Sciences; the technology of miniaturization in the U.S. semiconductor and computer industries is advancing faster than understanding of the basic physical, electronic, and structural principles involved in what the panel termed "microstructure science and engineering." The reported conclusions of a 1978 workshop and subsequent work by the panel and several subpanels stress the need for increased study, primarily in university-based programs, of the special problems and opportunities associated with miniaturization—Aug, 1

Mineral and Energy Resources, Board on: *see* Workshop on Concepts of Uranium Resources and Producibility

Mobility Options for the Transportation Handicapped, Panel to Review: *see* NRC Transbus Study

Morgan, Russell H., chairman: *see* Evaluation of DOE Research on Health Effects of Ionizing Radiation

Morris, J. Carrell, chairman of Safe Drinking Water Committee subcommittee: *see* Chemistry of Disinfectants in Water

Murphy, Sheldon D., chairman of Safe Drinking Water Committee subcommittee: *see* Toxicity of Selected Drinking Water Contaminants

National Academy of Engineering: four men were chosen for three-year terms on the Academy's Council; 99 U.S. engineers were elected to membership and 18 engineers were named foreign associates: *see* elections, National Academy of Engineering; *see also* awards, National Academy of Engineering; deaths, of members and foreign associates of the National Academy of Engineering

National Academy of Sciences: an agreement, signed in Washington on October 23, 1978, by foreign secretary Thomas F. Malone and Claus Grote, secretary general of the Academy of Sciences of the German Democratic Republic, provides for the exchange of scholars between the two countries. The agreement is the latest of eight exchange programs maintained with science academies in the Soviet Union and Eastern Europe—Jan, 1; on February 28 Academy president Philip Handler announced the retirement, effective May 1, of John S. Coleman as executive officer of the Academy and of the National Research Council. Coleman's successor is Robert M. White—Apr, 1; the Academy of Sciences of the U.S.S.R. and the National Academy of Sciences of the United States signed a new agreement on February 7 in Washington. The agreement, for 1979 and 1980, expressed the intent of both academies to continue current exchanges of scientists and to try to undertake a larger number of collaborative projects such as jointly-organized symposia—Apr, 10; Bryce Crawford, Jr., was elected foreign secretary and three new councillors were

chosen; 60 U.S. scientists were elected to membership and 15 scientists were named as foreign associates: *see* elections, National Academy of Sciences; *see also* Albert Einstein Memorial; awards, National Academy of Sciences; deaths, of members and foreign associates of the National Academy of Sciences; Human Rights, National Academy of Sciences Committee on; Risks Associated with Nuclear Power; Science and Technology National Aeronautics and Space Administration: *see* Flammability, Smoke, Toxicity, and Corrosive Gases of Electric Cable Materials; Strategy for Exploration of the Inner Planets

National Climate Program Act (Pub. L. 95-367): *see* Toward a U.S. Climate Program Plan

National Heart, Lung, and Blood Institute: *see* Conference on Adolescent Behavior and Health

National Institute of General Medical Sciences: *see* DHEW's Research Planning Principles

National Institute on Alcohol Abuse and Alcoholism: *see* Assessment of Scientific Opportunities in Alcohol-Related Research; Conference on Adolescent Behavior and Health

National Institute on Drug Abuse: *see* Conference on Adolescent Behavior and Health

National Institutes of Health: *see* DHEW's Research Planning Principles

National Materials Advisory Board: *see* Causes and Prevention of Grain Elevator Explosions; Flammability, Smoke, Toxicity, and Corrosive Gases of Electric Cable Materials; Ion Implantation; Vanadium Supply and Demand Outlook

National Research Council; Robert M. White was named administrator effective May 1, succeeding retiring executive officer John S. Coleman—Apr, 1; new projects announced and reports published: *see* Behavioral and Social Sciences, Assembly of; Engineering, Assembly of; Human Resources, Commission on; International Relations, Commission on; Life Sciences, Assembly of; Mathematical and Physical Sciences, Assembly of; Natural Resources, Commission on; Sociotechnical Systems, Commission on

National Science and Technology Policy, Organization, and Priorities Act of 1976: *see* Science and Technology

National Science Foundation: *see* Astronomy in China; Continental Margins; Continuing Quest; Continuity in Academic Research Performance; Engineering for Deep Sea Drilling for Scientific Purposes; Medical Technology; Peer Review in the National Science Foundation; Science and Technology; State of School Science

National Statistics, Committee on: *see* Counting the People in 1980

Natural Disasters, Commission on Sociotechnical Systems Committee on: *see* Flood of 31 July 1976 in Big Thompson Canyon

natural resources: *see* Continental Margins; Continental Scientific Drilling Program; Critical Issues in Coal Transportation Systems; Department of Energy: Some Aspects of Basic Research in the Chemical Sciences; Impact of Technology on Geophysics; Ion Implantation; Polychlorinated Biphenyls; Science and Technology; Tropical Legumes; U.S. Energy Supply Prospects; Workshop on Concepts of Uranium Resources

Natural Resources, National Research Council Commission on: new projects announced: Committee on Soil as a Resource in Relation to Surface Mining for Coal—Jan, 2; Committee on Environmental Regulation and Technological Innovation; Review of Environmental Research and Development—Feb, 5; Committee on Ground-water Resources in Relation to Coal Mining; Study of Particulate Matter—Mar, 3; Subcommittee on Evaluation of Psoroptic Cattle Scabies Research; Committee on Weather and Climate Information Systems for Agriculture—Apr, 2; Committee on Research Management in the Bureau of Land Management; Issues in the Prevention of Significant Deterioration of Air Quality; Urban Pest Management—May, 3; Committee on the Atmosphere and Biosphere: Processes of Exchange and Their Impact—Jul, 3; Study on Wild and Free-Roaming Horses and Burros—Aug, 3; Alternative Programs for Beltwide Cotton Insect Management—Sep, 3; Committee on Mineral Technology Development Options—Oct, 5; Technical Review of the Swedish KBS-2 Plan for the Handling and Final Disposal of Unprocessed Spent Nuclear Fuel; Planning Conference on Synthetic Fuels (joint project with the Office of the Administrator, National Research Council)—Nov, 3; Workshop on a Long Range Environmental Outlook—Dec, 3; see also Environmental Regulation and Technological Innovation; Environmental Research and Development; *Polychlorinated Biphenyls*; *Role of the U.S. Department of Agriculture in Aquaculture*; *Workshop on Concepts of Uranium Resources and Producibility*

Newell, Homer E., chairman of panel of the Geophysics Study Committee: see *Impact of Technology on Geophysics*

Nonfaculty Doctoral Research Staff in Science and Engineering in United States Universities, Committee on a Study of Postdoctorals and Doctoral Research Staff in Science and Engineering, National Research Council Commission on Human Resources; current data on nonfaculty research staff are sparse, the committee said, but indicate many changes wrought in recent years as a result of universities looking for ways to deal with shrinking enrollments and reduced faculty-hiring. Methods of federal funding—i.e., for specific projects—also encourage the hiring of nonfaculty, non-postdoctoral staff (estimated at about 3 percent of the more than 142,000 doctoral scientists and engineers working in academia in 1977) offered lower pay, no promise of tenure, and no job security. Recommendations stress the need for more extensive data-collection, consideration of personnel issues involving nonfaculty researchers, and study of alternatives to increasing the size of doctoral-research staffs while maintaining the quality of university research—Mar, 10

NRC [National Research Council] Transbus Study—Part 1: *Transbus Procurement*; Part 2: *Mobility Options for the Transportation Handicapped*, Panel to Review Transbus Procurement Requirements and Panel to Review Mobility Options for the Transportation Handicapped, National Research Council Commission on Socio-technical Systems; U.S. bus manufacturers declined to bid on building buses to Department of Transportation standards and the department wanted to know why.

Mitre Corp. studied Transbus specifications and reported that, while it may be technically possible to build Transbus within the five years specified, the department should consider other ways of designing and building a bus to meet the needs of the elderly and the handicapped. The Panel to Review Transbus Procurement Requirements disagreed on the former; because it is "impossible to separate the technical risk from the financial risk" the panel agreed with the manufacturers in finding their no-bid decisions to be "reasonable and understandable business judgments." The Panel to Review Mobility Options for the Transportation Handicapped reported that alternatives to designing a new bus are available and should be considered. The panel also stressed that choice among the many alternatives must pay attention to local social, economic, and political issues as well as technical matters—Nov, 4

Nuclear and Alternative Energy Systems, National Research Council Committee on: see *Alternative Energy Demand Futures*; *Department of Energy: Some Aspects of Basic Research in the Chemical Sciences*; *Risks Associated with Nuclear Power*; *U.S. Energy Supply Prospects*

Nuclear Risk Survey, Steering Committee for, National Academy of Sciences Committee on Science and Public Policy: see *Risks Associated with Nuclear Power*

Occupational Classification and Analysis, Committee on: see *Job Evaluation*

Occupational Safety and Health Administration: see *Causes and Prevention of Grain Elevator Explosions*

Ocean Policy Committee: see *Proceedings of a Workshop on Procedures for Marine Scientific Activities*

Ocean Sciences Board: see *Continental Margins* oceans: see *Continental Margins*; *Continental Scientific Drilling Program*; *Continuing Quest*; *Engineering for Deep Sea Drilling for Scientific Purposes*; *Polychlorinated Biphenyls*; *Proceedings of a Workshop on Procedures for Marine Scientific Activities*; *Strategy for Exploration of the Inner Planets*

Odors from Stationary and Mobile Sources, Board on Toxicology and Environmental Health Hazards Committee on Odors from Stationary and Mobile Sources, National Research Council Assembly of Life Sciences; different noses respond differently—the same scent that pleases one person may offend another or might please or disgust many people in weaker or stronger concentrations. The Clean Air Act Amendments of 1977 require that the Environmental Protection Agency report to Congress "on the effects on public health and welfare of odors," and the agency sought the committee's help in attempting to quantify odors, their sources, and the costs and benefits of abating them. But the committee encountered many problems: much of the problem is of a subjective nature; there is a lack of scientific information on the effects of odors on people; the report recommends studies on effects of odors on animals and

of the odor-sensitivity of various human population groups; there is also a need for more study of how odors are dispersed into the atmosphere and of subsequent human exposure—Dec, 1

Office of Naval Research: see *Continental Margins*

Office of Science and Technology Policy: see *Analysis of Industry Recruitment of Women Scientists*; *Climbing the Academic Ladder*; *Diesel Impacts Study Committee*; *Environmental Research and Development*; *Science and Technology*

Orlov, Yuriy F.: see *Human Rights*

Osborn, Elbert F., chairman of U.S. Geodynamics Committee workshop: see *Continental Scientific Drilling Program*

Pariser, E. R., chairman on Steering Committee: see *Postharvest Food Losses* PAVE PAWS Radar System, Engineering Panel on: see *Radiation Intensity of the PAVE PAWS Radar System* Peer Review in the National Science Foundation: *Phase One of a Study*. Prepared for the National Academy of Sciences Committee on Science and Public Policy by Stephen Cole, Leonard Rubin, and Jonathan R. Cole; committee chairman I. M. Singer summarized the committee's conclusions from the authors' data in a prefatory essay written for this report to the National Science Foundation. The data on NSF's program of referring grant applicants' study proposals to other specialists in the field show a high correlation between review ratings and grants made. There was no evidence that reviewers from major institutions treated proposals from scientists at other major institutions more favorably, thus refuting critics' claims of an "old boy" network. Nor does age seem to be a factor in the awarding of grants: "Scientists with an excellent track record are very likely to receive a grant. With the exception of young scientists, those with a poor record are unlikely to receive one"—Feb, 2

Peltier, Eugene J., chairman of Panel to Review Transbus Procurement Requirements: see *NRC Transbus Study*

People's Republic of China: see *Astronomy in China*; *Cancer in China*

Planetary and Lunar Exploration, Space Science Board Committee on: see *Strategy for Exploration of the Inner Planets*

Platt, Jeremy, quoted: see *Workshop on Concepts of Uranium Resources*

Polar Ocean Engineering, Marine Board Panel on: see *Engineering at the Ends of the Earth* *Polychlorinated Biphenyls*, Committee on the Assessment of Polychlorinated Biphenyls in the Environment, Environmental Studies Board, Commission on Natural Resources, National Research Council; the committee, in response to a request from the Environmental Protection Agency, prepared a model of the distribution of polychlorinated biphenyls in the environment and attempted to assess the economic, environmental, and health-related costs and benefits of alternative policies for dealing with them but cautioned that "Cost-effectiveness data do not constitute an adequate basis for making

policy decisions about control options." The report stresses the "generic aspect" of the study: the committee felt its model "of PCB distribution, the approach to quantifying persistence and toxicity, and the analysis of control options are applicable to studies of other persistent environmental pollutants"—Sep, 1

Postdoctorals and Doctoral Research Staff in Science and Engineering, Committee on: *see Nonfaculty Doctoral Research Staff*

Postharvest Food Losses in Developing Countries, Steering Committee of Study on Postharvest Food Losses in: Developing Countries, Board on Science and Technology for International Development, National Research Council Commission on International Relations; though the exact amount of food lost between harvesting and preparation cannot be determined precisely, various estimates all indicate such losses to be "enormous;" at a minimum, losses range from 10 percent for durable crops to 20 percent for nongrain staples, fish, and perishables. The committee, in its study for the Agency for International Development, said that current losses "represent an international challenge that richly merits attention." The committee recommended national efforts, supported by bilateral and international technical assistance agencies, to estimate the losses, to understand their causes, and to establish programs to train and assist individuals to stop present losses and to take preventive measures to save future crops—Jan, 1

Poverty Research, Committee on Evaluation of: *see Evaluating Federal Support for Poverty Research*

Privacy Act of 1974 (5 U.S. Code 552a): *see Privacy and Confidentiality*

Privacy and Confidentiality as Factors in Survey Response, Committee on National Statistics Panel on Privacy and Confidentiality as Factors in Survey Response, National Research Council Assembly of Behavioral and Social Sciences; the Census Bureau wanted to know more about how fears of invasion of privacy and loss of confidentiality might affect how people respond to surveys or whether such fears keep them from responding at all, and the panel assisted by assessing two nationwide surveys of public concerns and by examining the sparse literature on the subject. The results—and the panel stressed their tentative nature—indicated that many people have very limited knowledge of and experience with surveys and have many misgivings about them. Among recommendations: The Census Bureau should try harder to acquaint citizens with the legal bases of assurances of confidentiality, and other ways should be sought to obtain information on matters subject to the greatest resistance to any or accurate response (questions on personal income, for example)—Dec, 1

Proceedings of a Workshop on: *Procedures for Marine Scientific Activities in a Changing Environment, January 9-11, 1978*, Ocean Policy Committee, National Research Council Commission on International Relations; excerpt—Mar, 2

Public Involvement in Maritime Facility Development, Committee on the Impact of Maritime Services on Local Populations, Maritime Transportation Research Board,

Commission on Sociotechnical Systems, National Research Council; the committee looked at several U.S. waterfronts recently or now being developed or redeveloped and sought "to improve public participation in port and maritime planning, to improve the process of communicating with the people most affected by change, and to suggest methods of alleviating adverse effects. . . . Only rarely has a proposal been so well conceived that informed review and comment could not improve it," the committee said. Among aims of public participation: "early assessment of site feasibility . . . enhanced credibility in the governmental review process . . . reduction of the likelihood of lawsuits and injunctions . . . and early identification of latent socioeconomic impacts that may later have to become the subject of litigation and compensation"—Apr, 1

Rachie, Kenneth O., chairman of panel of Advisory Committee on Technology Innovation: *see Tropical Legumes*
Radiation from the PAVE PAWS Radar System, Panel on the Extent of: *see Analysis of the Exposure Levels and Potential Biologic Effects of the PAVE PAWS Radar System*

Radiation Intensity of the PAVE PAWS Radar System, Engineering Panel on the PAVE PAWS Radar System, National Research Council Assembly of Engineering; excerpt—Jul, 9

Rehabilitation Act of 1973, section 504 (Pub. L. 93-112, 29 U.S. Code 794): *see NRC Transbus Study*

Risks Associated with Nuclear Power: *A Critical Review of the Literature. Summary and Synthesis Chapter*, Steering Committee for the Nuclear Risk Survey, National Academy of Sciences Committee on Science and Public Policy; the committee's review of the technical literature on nuclear power found many areas lacking scientific or technical certainties and requiring value judgments beyond the purview of scientific appraisal alone. In some areas estimates of risk vary widely, and the committee sought reference points in studies in which criticism from several government agencies and the public had been sought; in other areas (sabotage or terrorism, for example) the data were so disputable as not to be quantifiable by technological analysis alone. Though the committee considered only risks of nuclear power, it insisted that public-policy options for future energy-generation require consideration of diverse risks involved in producing other forms of power, "and for each of these one must estimate its benefits, costs, time scale, and risks; one must also bear in mind the costs and risks of not producing it." The study was supported by funds from the Academy and from the Energy Research and Development Administration and the Department of Energy—Jun, 1

Robbins, Frederick C., chairman of Committee for a Study on Saccharin and Food Safety Policy: *see Food Safety Policy*;

Saccharin: *Technical Assessment of Risks and Benefits*

Robert Wood Johnson Foundation: *see Emergency Medical Services at Midpassage*
Robeson, Mark D., chairman of Panel to Review Mobility Options for the Transportation Handicapped: *see NRC Transbus Study*
Role of the U.S. Department of Agriculture in Aquaculture, Panel on Aquaculture, Board on Agriculture and Renewable Resources, National Research Council Commission on Natural Resources; the report, prepared in response to a request from the Department of Agriculture and based on a February 1979 workshop, stresses the need for improved coordination among Federal agencies concerned with aquaculture and for uniform classification of aquaculture as an agricultural pursuit. The panel also urged strong action by the department to promote aquaculture in the states and to develop markets for aquacultural products—Oct, 1
Rosenblith, Walter A., panel cochairman, Committee for a Study on Saccharin and Food Safety Policy: *see Food Safety Policy*;
Saccharin: *Technical Assessment of Risks and Benefits*

Rowen, Henry S., chairman of new committee of Assembly of Engineering: *see Diesel Impacts Study Committee*

Rubin, Leonard: *see Peer Review in the National Science Foundation*

Russell, Milton, chairman of new study group: *see Impact of Taxation on Energy Markets*

Saccharin: *Technical Assessment of Risks and Benefits: Report No. 1, Panel I: Study of Saccharin and Its Impurities*, Committee for a Study on Saccharin and Food Safety Policy, National Research Council Assembly of Life Sciences-National Academy of Sciences Institute of Medicine; excerpts—Feb, 6
Saccharin Study and Labeling Act (Pub.L. 95-203): *see Food Safety Policy*;
Saccharin: *Technical Assessment of Risks and Benefits*
Safe Drinking Water Amendments of 1977 (Pub.L. 95-190): *see Chemistry of Disinfectants in Water; Disinfection of Drinking Water; Toxicity of Selected Drinking Water Contaminants*

Safe Drinking Water Committee: *see Chemistry of Disinfectants in Water; Disinfection of Drinking Water; Epidemiological Studies of Cancer Frequency; Toxicity of Selected Drinking Water Contaminants*

Sanders, Charles A., chairman of Committee on Technology and Health Care: *see Medical Technology and the Health Care System*

Sawyer, Robert, chairman of new Assembly of Engineering panel: *see Diesel Impacts Study Committee*

Scholarly Communication with the People's Republic of China, Committee on: *see Astronomy in China; Cancer in China*
School Science, Panel on: *see State of School Science*

Science and Public Policy, National Academy of Sciences Committee on: *see Peer Review in the National Science Foundation; Risks Associated with Nuclear Power*

Science and Technology: *A Five-Year Outlook*, Report to the National Science Foundation from the National Academy of Sciences;

- the National Science and Technology Policy, Organization, and Priorities Act of 1976 called for the preparation of annual "Five-Year Outlook" reports to "identify and describe . . . current and emerging problems . . . that are identified through scientific research [and] opportunities for, and constraints on, the use of new and existing scientific and technological capabilities which can make a significant contribution to the resolution of [those] problems. . . ." The National Science Foundation planned to use the Academy's report, along with other outside studies, in preparing the first outlook report. *Science and Technology* describes selected fields of science, engineering, and medicine and follows with "outlook" assessments; excerpts—Nov, 8
- Science and Technology for International Development, Board on: see *Postharvest Food Losses in Developing Countries; Tropical Legumes*
- Shaw, William H., chairman of Committee on National Statistics panel: see *Privacy and Confidentiality*
- Shcharanskiy, Anatoliy B.: see *Human Rights*
- Silver, Leon T., chairman of Board on Mineral and Energy Resources panel: see *Workshop on Concepts of Uranium Resources and Producibility*
- Singer, I. M., chairman of National Academy of Sciences Committee on Science and Public Policy: see *Peer Review in the National Science Foundation*
- Sleeping Pills, Insomnia, and Medical Practice*, Steering Committee, Study of Appropriate Use of Barbiturates and Other Sedative Hypnotics in Medical Practice, Institute of Medicine Division of Mental Health and Behavioral Medicine; excerpt—Jun, 8
- Smith, Harlan J., chairman of Space Science Board committee: see *Strategy for Space Astronomy and Astrophysics*
- social problems: see *Analysis of Industry Recruitment of Women Scientists; Assessment of Scientific Opportunities in Alcohol-Related Research; Climbing the Academic Ladder; Conference on Adolescent Behavior and Health; Counting the People in 1980; Evaluating Federal Support for Poverty Research; Job Evaluation; NRC Transbus Study; Odors; Privacy and Confidentiality; Science and Technology; Sleeping Pills Insomnia, and Medical Practice; Transportation Development and Land Use Planning*
- Social Science Research Council: see *Astronomy in China; Cancer in China*
- Sociotechnical Systems, National Research Council Commission on: new Projects announced: Air Transportation Research Information Service; Characterization of Organic Matrix Composites; Conference on Statewide Transportation Planning; Continuation of Services to the Federal Highway Administration; Continuation of Services to the Urban Mass Transportation Administration; Development of Guidelines for a Study of Highway Cost Allocations; Evaluate Methodologies and Factors Involved in Predicting Air Traffic Demands; Maritime Research Information Service, contract renewal; National Forum on Highway Traffic Noise Mitigation; Recovery of Energy and Materials from Solid Waste; Services in Support of Railroad Research and Dissemination of Information—Feb, 5; Adequacy of Maritime Cargo Statistical Data; Committee on Battery Materials; Committee on Chemical Protective Clothing Systems; Committee on Commutation and Energy Consumption; Committee on Loads Management and Life Prediction of Aircraft; Committee on Materials, Reliability and Maintenance Problems of Inert Gas Systems for Cargo Tank Atmosphere Control; Committee on Measurement and Control of Respirable Dust in Mines; Committee on Research Needs on Vessel Control to Reduce Maritime Casualties—Mar, 3; Conference on Highway Safety Research, Development and Demonstration; Panel on Causes and Prevention of Grain Elevator Explosions; Panel on Trends in the Use of Platinum-Group Elements—Apr, 2; Alternative Fuels for Maritime Use; Committee on Military Helmets; Functional Interrelationships Between Nuclear Disasters and Other Types of Disasters—Jun, 3; Conference on Vertical Movement in Transit Stations: Issues and a Search for Solutions—Jul, 3; Committee on Powder Aluminum Alloys; Committee on Superalloy Powder Alloys; Manganese Supply and Its Industrial Implications; Problems of Inert Gas Systems for Cargo Tank Atmosphere Control; Study and Investigation of Methods for Increasing Use of Seat Belts—Aug, 3; 1979 Building Futures Forum: A National Strategy for Improving Productivity in Building and Construction; High Temperature Metal and Ceramic Matrix Composites; Review of Transbus Procurement Requirements—Oct, 5; Technical Review Panel for Truck Size and Weight; Transportation Research Board Correlation Service; National Energy Users Conference for Transportation—Dec, 3; see also *Causes and Prevention of Grain Elevator Explosions; Critical Issues in Coal Transportation Systems; Flood of 31 July 1976 in Big Thompson Canyon, Colorado; NRC Transbus Study; Public Involvement in Maritime Facility Development; Transportation Development and Land Use Planning; Truck Size and Weight; Vanadium Supply and Demand Outlook*
- Sodium-Restricted Diets and the Use of Diuretics: Rationale, Complications, and Practical Aspects of Their Use, Committee on Sodium-Restricted Diets, Food and Nutrition Board, Division of Biological Sciences, National Research Council Assembly of Life Sciences; excerpt—Jul, 7
- Solid State Sciences Committee: see *Microstructure Science, Engineering, and Technology*
- space: see *Life Beyond the Earth's Environment; Strategy for Exploration of the Inner Planets; Strategy for Space Astronomy and Astrophysics*
- Space Biology and Medicine, Space Science Board Committee on: see *Life Beyond the Earth's Environment*
- Space Science Board: see *Life Beyond the Earth's Environment; Strategy for Exploration of the Inner Planets; Strategy for Space Astronomy and Astrophysics*
- Spengler, John D., cochairman of new Assembly of Life Sciences committee; see *Indoor Pollutants*
- State of School Science: A Review of the Teaching of Mathematics, Science, and Social Studies in American Schools and Recommendations for Improvements*, Panel on School Science, National Research Council Commission on Human Resources; teaching of mathematics and science in U.S. school systems has shown "considerable slippage" in recent years, the panel told the National Science Foundation after appraising other studies commissioned by the foundation. The report recommends establishment of resource centers to provide in-service training for teachers, prepare kits of teaching materials, and advise teachers on new instructional materials and techniques; more funding for design, testing, and revision of new courses; institutes for teachers; and development of more local science and technology education centers. Leadership in these efforts, the panel stressed, "must come from scientists and scientific organizations"—Nov, 1
- Strategy for Exploration of the Inner Planets: 1977-1987*, Space Science Board Committee on Planetary and Lunar Exploration, National Research Council Assembly of Mathematical and Physical Sciences; the committee's study for the National Aeronautics and Space Administration evaluated present and proposed plans for planetary and lunar exploration and recommended long-term scientific goals for exploring the four planets nearest the sun—Venus, Mars, Mercury, and the Earth. The committee stressed the importance of comparative study of the three planets with atmospheres (Venus, Mars, and Earth) toward the goal of reconciling current ideas of their common origin with differences in their evolution. Other recommendations included a call for increased U.S.-Soviet cooperation in expeditions where the two countries have mutual interests and the committee urged cooperation among government agencies, industry and universities in solving instrumentation problems—Apr, 4
- Strategy for Space Astronomy and Astrophysics for the 1980's*, Committee on Space Astronomy and Astrophysics, Space Science Board, National Research Council Assembly of Mathematical and Physical Sciences; the committee assessed developments in the many subfields of space astronomy and astrophysics and considered needs for research in the next decade. "[A]n orderly progression of inquiry" should include continued emphasis on ground-based optical and radio observatories in addition to new ventures in space, the committee said. Recommendations for highest priority in the U.S. space program include: the Space Telescope and the Solar Polar Mission (both scheduled for launching in 1983), an orbiting gamma-ray observatory, an x-ray observatory for high-resolution spectroscopy, and designing of a cosmic-ray observatory—Nov, 6
- Strehlow, Roger A., chairman of new panel of the Committee on Evaluation of Industrial Hazards: see *Causes and Prevention of Grain Elevator Explosions*
- Supply/Delivery Panel, National Research Council Committee on Nuclear and Alternative Energy Systems: see *U.S. Energy Supply Prospects*
- Surface Transportation Act of 1978 (Pub. L. 95-599): see *Truck Size and Weight*

Taxonomy of Energy Taxes, Steering Committee on the Impact of Taxation on Energy Markets, Assembly of Behavioral and Social Sciences; excerpts—Nov, 3

Technical Aspects of Critical and Strategic Materials, Committee on: see *Vanadium Supply and Demand Outlook*

Technology and Health Care, Committee on: see *Medical Technology and the Health Care System*

Technology Innovation, Advisory Committee on: see *Tropical Legumes*

Toward a U.S. Climate Program Plan, Report of the Workshop to Review the U.S. Climate Program Plans, Woods Hole, Ma., July 12-19, 1978, to the Climate Research Board, National Research Council Assembly of Mathematical and Physical Sciences; workshop participants reviewed climate-related programs of various Federal agencies and found several inadequacies. Among areas in need of greater attention in the future: research into oceanic processes and their influence on climate, study of climate's impacts on society, international activities of a U.S. Climate Program, and ways to involve nongovernmental scientific communities. Planning and operating the U.S. Climate Program "will be an unprecedented scientific task" offering "an opportunity to advance our own national, scientific, and humanitarian interests"—Jul, 8

Toxic Substances Control Act (15 U.S. Code 2601-2629): see *Polychlorinated Biphenyls*

Toxicity of Selected Drinking Water Contaminants, Subcommittee on Toxicology, Safe Drinking Water Committee, Board on Toxicology and Environmental Health Hazards, National Research Council Assembly of Life Sciences; the estimated number of volatile organic compounds in drinking-water sources is about 700 now and is rising; the subcommittee examined 46 compounds and found that, for nearly half of them, data were insufficient for estimating cancer risk or no-effect concentrations. The subcommittee recommended that the Environmental Protection Agency develop its own method for assessing hazards of specific contaminants toward the goal of developing "Suggested No Adverse Response Levels" for acute and chronic exposures—Aug, 2

Toxicology and Environmental Health Hazards, Board on: see *Atmospheric Aldehydes; Chemistry of Disinfectants in Water; Epidemiological Studies of Cancer Frequency; Indoor Pollutants; Odors; Toxicity of Selected Drinking Water Contaminants*

Transbus Procurement Requirements, Panel to Review: see *NRC Transbus Study*

transportation: see *Atmospheric Aldehydes; Critical Issues in Coal Transportation Systems; Diesel Impacts Study Committee; NRC Transbus Study; Public Involvement in Maritime Facility Development; Transportation Development and Land Use Planning; Truck Size and Weight*

Transportation, U.S. Department of: see *Diesel Impacts Study Committee; NRC Transbus Study; Truck Size and Weight*

Transportation Development and Land Use Planning: *Conference Proceedings (Trans-*

portation Research Board Special Report 183), Transportation Research Board, National Research Council Commission on Sociotechnical Systems; excerpt—Apr, 7

Transportation Research Board: see *Transportation Development and Land Use Planning; Truck Size and Weight*

Trends in Use of Vanadium, Panel on, National Materials Advisory Board: see *Vanadium Supply and Demand Outlook*

Tropical Legumes: *Resources for the Future*, Panel on Tropical Legumes, Advisory Committee on Technology Innovation, Board on Science and Technology for International Development, National Research Council Commission on International Relations; "Of all plants used by man, only the grasses are more important than the legumes," the panel said, yet only a few legumes are extensively cultivated or have even received any attention. The panel polled scientists from around the world and, out of 600 species recommended by them, selected about 200 for description in its report. *Tropical Legumes* catalogues legumes that have potential for multiple uses, that would benefit the rural poor, that are hardy enough to survive where other plants could not, and that are unlikely to become pests if introduced into new regions. The panel stressed that the species discussed "should be seen as complements to, not as substitutes for, conventional tropical crops"—Oct, 1

Truck Size and Weight, Technical Review Panel for, Transportation Research Board, National Research Council Commission on Sociotechnical Systems; the Surface Transportation Act of 1978 directed the Department of Transportation to study needs for and desirability of uniform limits on maximum size and weight of trucks; the panel was formed to advise on the design of the department's study and to comment on the department's report to Congress—Dec, 1

Turk, Amos, chairman of Committee on Odors from Stationary and Mobile Sources: see *Odors*

U.S. Air Force: see *Analysis of the Exposure Levels and Potential Biologic Effects of the PAVE PAWS Radar System; Radiation Intensity of the PAVE PAWS Radar System*

U.S. Climate Program: see *Toward a U.S. Climate Program Plan*

U.S. Energy Supply Prospects, Supply/Delivery Panel, National Research Council Committee on Nuclear and Alternative Energy Systems; excerpts—Nov, 2

Understanding Climatic Change, 1974 report of the National Research Council U.S. Committee on the Global Atmospheric Research Program; cited: see *World Climate Conference*

Uniform Relocation Assistance and Real Property Acquisition Act of 1970: see *Public Involvement in Maritime Facility Development*

Union of Soviet Socialist Republics: see *Human Rights, National Academy of Sciences Committee on*

United Nations: see *Postharvest Food Losses in Developing Countries*

Upper Mantle Project: see *Continental Scientific Drilling Program*

Uranium Resources and Producibility, Panel on, Board on Mineral and Energy Resources: see *Workshop on Concepts of Uranium Resources and Producibility*

Urban Mass Transportation Administration: see *NRC Transbus Study*

USSR and Eastern Europe, Advisory Committee on, National Research Council Commission on International Relations: see *National Academy of Sciences*

Vanadium Supply and Demand Outlook (NMAB-346), Panel on Trends in Use of Vanadium, Committee on the Technical Aspects of Critical and Strategic Materials, National Materials Advisory Board, National Research Council Commission on Sociotechnical Systems; excerpts—Jan, 3

Webber, Melvin M., "Technics and Ethics in Transport Decisions," excerpt; see *Transportation Development and Land Use*

White, Robert M.: see *National Academy of Sciences; National Research Council; see also World Climate Conference*

Wolfe, Dael, chairman of Panel on School Science: see *State of School Science*

Wooster, Warren S., chairman of Ocean Sciences Board committee: see *Continuing Quest*

Workshop on Concepts of Uranium Resources and Producibility, Board on Mineral and Energy Resources Panel on Concepts of Uranium Resources and Producibility, National Research Council Commission on Natural Resources; no workshop participant was entirely satisfied with current methods for assessing future uranium supplies and needs; much of the problem seems to rest on the unique nature of the uranium industry and in its inherent economic uncertainties: slow completion of nuclear power plants may lead some forecasters to unwarranted confidence in the sufficiency of U.S. supplies to meet expected needs. Geological judgments are uncertain, too, until more exploratory drilling is done and until "better conceptual models" are developed—Mar, 1

World Climate Conference: the February 12-23, 1979 meeting—organized by the World Meteorological Organization in cooperation with other intergovernmental organizations and the International Council of Scientific Unions—was convened to survey current knowledge about climate and its impacts and to serve as a beginning to international efforts to devise a World Climate Program for the 1980s and 1990s. The National Research Council's Climate Research Board assisted in organizing the conference—Feb, 1

World Climate Program: see *Toward a U.S. Climate Program Plan*

World Meteorological Organization: see *World Climate Conference*

